

# RESEARCH, DEVELOPMENT & TECHNOLOGY TRANSFER QUARTERLY PROGRESS REPORT

Wisconsin Department of Transportation  
DT1241 02/2011

## INSTRUCTIONS:

Research project investigators and/or project managers should complete a quarterly progress report (QPR) for each calendar quarter during which the projects are active.

<b>WisDOT research program category:</b> <input type="checkbox"/> Policy research <input type="checkbox"/> Other <input checked="" type="checkbox"/> Wisconsin Highway Research Program <input type="checkbox"/> Pooled fund TPF#		Report period year: <b>2014</b> <input checked="" type="checkbox"/> Quarter 1 (Jan 1 – Mar 31) <input type="checkbox"/> Quarter 2 (Apr 1 – Jun 30) <input type="checkbox"/> Quarter 3 (Jul 1 – Sep 30) <input type="checkbox"/> Quarter 4 (Oct 1 – Dec 31)
Project title: <b>Comparison of Fresh Concrete Air Content Test Methods &amp; Analysis of Hardened Air Content in Wisconsin Pavements</b>		
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WisDOT project ID: <b>0092-14-05</b>	Other project ID:	Project start date: <b>10/17/2013</b>
Original end date: <b>10/16/2015</b>	Current end date: <b>10/16/2015</b>	Number of extensions:

## Project schedule status:

☐ On schedule ☐ On revised schedule ☐ Ahead of schedule ☒ Behind schedule

## Project budget status:

Total Project Budget	Expenditures Current Quarter	Total Expenditures	% Funds Expended	% Work Completed
99980	9882	16879	17	17

## Project description:

The primary objective of this study is, by employing ASTM C457 linear traverse procedure, to gain a thorough and valid definition of the air void systems of Wisconsin pavement concrete associated with the use of synthetic air entraining agents (AEA). In creating this data set, we seek to answer two questions that are of significant interest to the concrete pavement industry: i) are current methods of measuring fresh concrete air content suitable for concrete with synthetic AEAs?, and ii) what are the differences in the air void system of concrete with synthetic AEAs before and after the paver? Successful completion of the project will provide input for changes in concrete paving practice in Wisconsin.

## Progress this quarter (includes meetings, work plan status, contract status, significant progress, etc.):

The literature review started in the last quarter was continued and updated. The testing matrix has been reviewed and revised. ASTM C457 tests of five WisDOT cores from five projects of 2013 were completed. Certification of PCCTEC-I for one member of the research team has been accomplished. One meeting of the research team with WisDOT and Wisconsin Concrete Pavement Association (WCPA) representatives was organized to identify potential projects of 2014 and to arrange field access. The research team meets once per week or two weeks. Email communications occur between meetings.

## Anticipated work next quarter:

The literature review will be updated and completed. OCIP training will be completed. Sample casting at project sites will start and ASTM C457 testing of cylinders and cores will be conducted. Data of field and hardened concrete samples will be analyzed.

## Circumstances affecting project or budget:

Field sampling depends on contractors' paving schedule. If paving starts later than planned, delay in sample casting at project sites will be expected. The project is slightly behind schedule. WisDOT has fewer cores than anticipated from the 2013 paving season and thus work is being pushed off for the 2014 paving season. It remains to be seen if we can catch up.

**Attach / insert Gantt chart and other project documentation**

See attached.

FOR WISDOT USE ONLY

Staff receiving QPR:	Date received:
Staff approving QPR:	Date approved: